

REMARKS

The claims 1-11 were rejected as anticipated by Raghavan. Applicant request reconsideration. New claims 12 and 13 were added to define uniphase has being the modulation of one phase of a carrier by a single signal. New claims 14 and 15 were added to define the modulation as being by one single spread spectrum signal modulating only one phase of the carrier. The claims read on the specification homogeneously, one-to-one, and on to.

Independent claim 1 had been amended to include the limitations that the first spread spectrum signal and the second spread spectrum signal respectively uniphase modulate a carrier, and that, the dual spectrum signal is a uniphase dual spectrum signal. The specification and claims have been amended to define the limitation of uniphase modulation. The drawing clearly shows that no quadrature modulation is used, and only teaches uniphase modulation. The specification teaches synchronized modulation of a carrier. There are no references to I and Q signals or quadrature modulation in the drawings. This uniphase modulation would be readily apparent to anyone skilled in the art, even to those of no skill in the art. No new matter has been added.

The difference between the present invention and Raghavan lies in the differences in modulation signaling. Both are directed to CDMA communications. Both generate split and null spectra of two communicated signals. Raghavan teaches the use of quadriphase signaling, as independent claim 1 includes the limitation of "modulated in quadrature". The drawings and specification of

1 Raghavan teach quadriphase modulation by the use of I and Q  
2 quadrature signals. The present invention does not use I and Q  
3 quadriphase signaling, but rather superimposes during combining the  
4 two uniphase signals both modulating the same carrier phase. As  
5 such, the present invention is not anticipated or suggested by  
6 Raghavan.

7  
8 The present invention is patentable over Raghavan as Raghavan  
9 teaches quadrature modulation. Raghavan is directed specifically to  
10 GPS communications where quadriphase signaling is employed using a  
11 QPSK modulator. This quadriphase signaling in Raghavan is enabled  
12 by the use of  $90^\circ$  phase shifter 97, shown in Figures 2C and  
13 reflected in Figure 2B, during modulation. This quadriphase  
14 modulation requires quadriphase demodulation as enabled by a  
15 tracking loop using quadrature demodulators 72 and 115, as  
16 requiring a  $90^\circ$  phase off set signal. By contradistinction, the  
17 present invention proceeds directly contrary to the teachings of  
18 Raghavan. The present invention uses uniphase signaling and is  
19 applicable to BPSK modulation. The present invention cannot be used  
20 for GPS modulation and demodulation.

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1       One looking to increase channel capacity of a uniphase  
2 signaling system would not look to a quadriphase signaling system.  
3 The natural development of the field of spread spectrum  
4 communication is from BPSK to QPSK. Those skilled in the art in  
5 QPSK communication would not see advantages to BPSK communications.  
6 This is apparent by the lack of mention of split and null spectra  
7 communication in Raghavan as applied to BPSK signaling. Raghavan,  
8 is also a coinventor of the present application. Coinventor  
9 Raghavan never thought at the time of Raghavan to apply the split  
10 and null spectra of quadriphase communications backward to BPSK  
11 communications. Further, Raghavan was concerned with adding a new  
12 code for improved navigation that relies upon GPS quadriphase  
13 signaling, that is not applicable to uniphase signaling of BPSK, as  
14 BPSK is not used in a navigation system relying upon GPS quadrature  
15 signals. Those skilled in the art of navigation systems  
16 broadcasting GPS QPSK signals for purposes of improving the pseudo  
17 range accuracy, do not think in terms of general communications  
18 channel capacity, whereas, those skilled in the art of general  
19 communications think in terms of channel capacity. As such, one  
20 skilled in the art would not look to teachings of GPS QPSK  
21 signaling for improvement of pseudo range accuracy to increase  
22 generally channel capacity in uniphase BPSK communication systems.

While the examiner has made far-reaching broad readings of the specification and interpretations of the claims to include any modulation possible, any fair and reasonable reading of the specification and claims would teach that uniphase modulation was taught and claimed. Raghavan teaches quadriphase signaling using split and null spectra for increased pseudo range accuracy. Whereas, the present invention teaches uniphase signaling, using split and null spectra for increased channel capacity. Raghavan does not teach or suggest the present invention. The declaration of Jack Holmes is provided herewith in support. This case now being in good condition for appeal or allowance, allowance of claims is requested.

Respectfully Submitted

*Gerrick Michael Reid*

Derrick Michael Reid

Derrick Michael Reid, Esq.

# The Aerospace Corporation

PO Box 92957                      M1/040

Los Angeles, Ca 90009-2957

Reg. No. 32,096

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Date: June 4, 2008

*Derrick Michael Reid*

Derrick Michael Reid

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